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FEB 27 2002
TECH CENTER 1600/2900


1646

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/313,942

DATE: 02/14/2002

TIME: 15:49:04

Input Set : A:\REG203.txt

Output Set: N:\CRF3\02142002\I313942.raw

ENTERED

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4 <110> APPLICANT: REGENERON PHARMACEUTICALS, INC.
6 <120> TITLE OF INVENTION: RECEPTOR BASED ANTAGONISTS, AND METHODS OF MAKING
7   AND USING
9 <130> FILE REFERENCE: REG 203-A
C--> 11 <140> CURRENT APPLICATION NUMBER: US/09/313,942
12 <141> CURRENT FILING DATE: 1999-05-19
14 <150> PRIOR APPLICATION NUMBER: 09/313,942
15 <151> PRIOR FILING DATE: 1999-05-19
17 <150> PRIOR APPLICATION NUMBER: 60/101,858
18 <151> PRIOR FILING DATE: 1998-09-25
20 <160> NUMBER OF SEQ ID NOS: 32
22 <170> SOFTWARE: FastSEQ for Windows Version 3.0
24 <210> SEQ ID NO: 1
25 <211> LENGTH: 6
26 <212> TYPE: PRT
27 <213> ORGANISM: Artificial Sequence
29 <220> FEATURE:
30 <223> OTHER INFORMATION: Tag sequence
32 <400> SEQUENCE: 1
33   His His His His His His
34     1             5
36 <210> SEQ ID NO: 2
37 <211> LENGTH: 16
38 <212> TYPE: PRT
39 <213> ORGANISM: Artificial Sequence
41 <220> FEATURE:
42 <223> OTHER INFORMATION: peptide derived from region near C-terminus of
43   gp130
45 <400> SEQUENCE: 2
46   Cys Gly Thr Glu Gly Gln Val Glu Arg Phe Glu Thr Val Gly Met Glu
47     1             5             10             15
49 <210> SEQ ID NO: 3
50 <211> LENGTH: 16
51 <212> TYPE: DNA
52 <213> ORGANISM: Artificial Sequence
54 <220> FEATURE:
55 <223> OTHER INFORMATION: Kozak sequence
57 <400> SEQUENCE: 3
58   cgccgccacc atggtg
60 <210> SEQ ID NO: 4
61 <211> LENGTH: 10
62 <212> TYPE: PRT
63 <213> ORGANISM: Artificial Sequence

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OK to Enter

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/313,942

DATE: 02/14/2002
TIME: 15:49:04

Input Set : A:\REG203.tst
Output Set: N:\CRF3\02142002\I313942.raw

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TECH CENTER 1600/2900

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65 <220> FEATURE:
66 <223> OTHER INFORMATION: J peptide
68 <400> SEQUENCE: 4
69 Gly Gln Gly Thr Leu Val Thr Val Ser Ser
70 1 5 10
72 <210> SEQ ID NO: 5
73 <211> LENGTH: 11
74 <212> TYPE: PRT
75 <213> ORGANISM: Artificial Sequence
77 <220> FEATURE:
78 <223> OTHER INFORMATION: J peptide
80 <400> SEQUENCE: 5
81 Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
82 1 5 10
84 <210> SEQ ID NO: 6
85 <211> LENGTH: 10
86 <212> TYPE: PRT
87 <213> ORGANISM: Artificial Sequence
89 <220> FEATURE:
90 <223> OTHER INFORMATION: linker sequence
92 <400> SEQUENCE: 6
93 Gly Ala Pro Ser Gly Gly Gly Arg Pro
94 1 5 10
96 <210> SEQ ID NO: 7
97 <211> LENGTH: 859
98 <212> TYPE: PRT
99 <213> ORGANISM: Homo sapiens
101 <400> SEQUENCE: 7
102 Met Val Thr Leu Gln Thr Trp Val Val Gln Ala Leu Phe Ile Phe Leu
103 1 5 10 15
104 Thr Thr Glu Ser Thr Gly Glu Leu Leu Asp Pro Cys Gly Tyr Ile Ser
105 20 25 30
106 Pro Glu Ser Pro Val Val Gln Leu His Ser Asn Phe Thr Ala Val Cys
107 35 40 45
108 Val Leu Lys Glu Lys Cys Met Asp Tyr Phe His Val Asn Ala Asn Tyr
109 50 55 60
110 Ile Val Trp Lys Thr Asn His Phe Thr Ile Pro Lys Glu Gln Tyr Thr
111 65 70 75 80
112 Ile Ile Asn Arg Thr Ala Ser Ser Val Thr Phe Thr Asp Ile Ala Ser
113 85 90 95
114 Leu Asn Ile Gln Leu Thr Cys Asn Ile Leu Thr Phe Gly Gln Leu Glu
115 100 105 110
116 Gln Asn Val Tyr Gly Ile Thr Ile Ile Ser Gly Leu Pro Pro Glu Lys
117 115 120 125
118 Pro Lys Asn Leu Ser Cys Ile Val Asn Glu Gly Lys Lys Met Arg Cys
119 130 135 140
120 Glu Trp Asp Gly Gly Arg Glu Thr His Leu Glu Thr Asn Phe Thr Leu
121 145 150 155 160
122 Lys Ser Glu Trp Ala Thr His Lys Phe Ala Asp Cys Lys Ala Lys Arg

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123				165				170					175
124	Asp	Thr	Pro	Thr	Ser	Cys	Thr	Val	Asp	Tyr	Ser	Thr	Val
125				180				185					190
126	Asn	Ile	Glu	Val	Trp	Val	Glu	Ala	Glu	Asn	Ala	Leu	Gly
127			195				200					205	
128	Ser	Asp	His	Ile	Asn	Phe	Asp	Pro	Val	Tyr	Lys	Val	Lys
129		210					215					220	
130	Pro	His	Asn	Leu	Ser	Val	Ile	Asn	Ser	Glu	Glu	Leu	Ser
131		225				230					235		240
132	Lys	Leu	Thr	Trp	Thr	Asn	Pro	Ser	Ile	Lys	Ser	Val	Ile
133				245						250			255
134	Tyr	Asn	Ile	Gln	Tyr	Arg	Thr	Lys	Asp	Ala	Ser	Thr	Trp
135			260						265				270
136	Pro	Pro	Glu	Asp	Thr	Ala	Ser	Thr	Arg	Ser	Ser	Phe	Thr
137			275					280				285	
138	Leu	Lys	Pro	Phe	Thr	Glu	Tyr	Val	Phe	Arg	Ile	Arg	Cys
139		290					295					300	
140	Asp	Gly	Lys	Gly	Tyr	Trp	Ser	Asp	Trp	Ser	Glu	Glu	Ala
141		305				310					315		320
142	Thr	Tyr	Glu	Asp	Arg	Pro	Ser	Lys	Ala	Pro	Ser	Phe	Trp
143				325					330				335
144	Asp	Pro	Ser	His	Thr	Gln	Gly	Tyr	Arg	Thr	Val	Gln	Leu
145			340						345				350
146	Thr	Leu	Pro	Pro	Phe	Glu	Ala	Asn	Gly	Lys	Ile	Leu	Asp
147		355					360					365	
148	Thr	Leu	Thr	Arg	Trp	Lys	Ser	His	Leu	Gln	Asn	Tyr	Thr
149		370					375					380	
150	Thr	Lys	Leu	Thr	Val	Asn	Leu	Thr	Asn	Asp	Arg	Tyr	Leu
151		385				390				395			400
152	Thr	Val	Arg	Asn	Leu	Val	Gly	Lys	Ser	Asp	Ala	Ala	Val
153				405					410				415
154	Pro	Ala	Cys	Asp	Phe	Gln	Ala	Thr	His	Pro	Val	Met	Asp
155			420					425				430	
156	Phe	Pro	Lys	Asp	Asn	Met	Leu	Trp	Val	Glu	Trp	Thr	Thr
157		435					440					445	
158	Ser	Val	Lys	Lys	Tyr	Ile	Leu	Glu	Trp	Cys	Val	Leu	Ser
159		450					455					460	
160	Pro	Cys	Ile	Thr	Asp	Trp	Gln	Gln	Glu	Asp	Gly	Thr	Val
161		465				470				475			480
162	Tyr	Leu	Arg	Gly	Asn	Leu	Ala	Glu	Ser	Lys	Cys	Tyr	Leu
163				485					490				495
164	Thr	Pro	Val	Tyr	Ala	Asp	Gly	Pro	Gly	Ser	Pro	Glu	Ser
165		500						505				510	
166	Tyr	Leu	Lys	Gln	Ala	Pro	Pro	Ser	Lys	Gly	Pro	Thr	Val
167		515					520					525	
168	Lys	Val	Gly	Lys	Asn	Glu	Ala	Val	Leu	Glu	Trp	Asp	Gln
169		530				535					540		
170	Asp	Val	Gln	Asn	Gly	Phe	Ile	Arg	Asn	Tyr	Thr	Ile	Phe
171		545			550				555				560

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172 Ile Ile Gly Asn Glu Thr Ala Val Asn Val Asp Ser Ser His Thr Glu
173                               565                               570                               575
174 Tyr Thr Leu Ser Ser Leu Thr Ser Asp Thr Leu Tyr Met Val Arg Met
175                               580                               585                               590
176 Ala Ala Tyr Thr Asp Glu Gly Gly Lys Asp Gly Pro Glu Phe Thr Phe
177                               595                               600                               605
178 Thr Thr Pro Lys Phe Ala Gln Gly Glu Ile Glu Ser Gly Glu Pro Lys
179                               610                               615                               620
180 Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
181 625                               630                               635                               640
182 Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
183                               645                               650                               655
184 Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
185                               660                               665                               670
186 Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
187                               675                               680                               685
188 Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser
189                               690                               695                               700
190 Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
191 705                               710                               715                               720
192 Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala
193                               725                               730                               735
194 Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
195                               740                               745                               750
196 Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln
197                               755                               760                               765
198 Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
199                               770                               775                               780
200 Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
201 785                               790                               795                               800
202 Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
203                               805                               810                               815
204 Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
205                               820                               825                               830
206 Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser
207                               835                               840                               845
208 Leu Ser Pro Gly Lys His His His His His His
209                               850                               855
211 <210> SEQ ID NO: 8
212 <211> LENGTH: 592
213 <212> TYPE: PRT
214 <213> ORGANISM: Homo sapiens
216 <400> SEQUENCE: 8
217 Met Val Ala Val Gly Cys Ala Leu Leu Ala Ala Leu Leu Ala Ala Pro
218 1                               5                               10                               15
219 Gly Ala Ala Leu Ala Pro Arg Arg Cys Pro Ala Gln Glu Val Ala Arg
220                               20                               25                               30
221 Gly Val Leu Thr Ser Leu Pro Gly Asp Ser Val Thr Leu Thr Cys Pro
222                               35                               40                               45

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223	Gly	Val	Glu	Pro	Glu	Asp	Asn	Ala	Thr	Val	His	Trp	Val	Leu	Arg	Lys
224		50					55					60				
225	Pro	Ala	Ala	Gly	Ser	His	Pro	Ser	Arg	Trp	Ala	Gly	Met	Gly	Arg	Arg
226	65					70					75					80
227	Leu	Leu	Leu	Arg	Ser	Val	Gln	Leu	His	Asp	Ser	Gly	Asn	Tyr	Ser	Cys
228					85					90					95	
229	Tyr	Arg	Ala	Gly	Arg	Pro	Ala	Gly	Thr	Val	His	Leu	Leu	Val	Asp	Val
230				100					105					110		
231	Pro	Pro	Glu	Glu	Pro	Gln	Leu	Ser	Cys	Phe	Arg	Lys	Ser	Pro	Leu	Ser
232			115					120					125			
233	Asn	Val	Val	Cys	Glu	Trp	Gly	Pro	Arg	Ser	Thr	Pro	Ser	Leu	Thr	Thr
234		130					135					140				
235	Lys	Ala	Val	Leu	Leu	Val	Arg	Lys	Phe	Gln	Asn	Ser	Pro	Ala	Glu	Asp
236	145					150					155					160
237	Phe	Gln	Glu	Pro	Cys	Gln	Tyr	Ser	Gln	Glu	Ser	Gln	Lys	Phe	Ser	Cys
238					165					170					175	
239	Gln	Leu	Ala	Val	Pro	Glu	Gly	Asp	Ser	Ser	Phe	Tyr	Ile	Val	Ser	Met
240				180					185						190	
241	Cys	Val	Ala	Ser	Ser	Val	Gly	Ser	Lys	Phe	Ser	Lys	Thr	Gln	Thr	Phe
242			195					200					205			
243	Gln	Gly	Cys	Gly	Ile	Leu	Gln	Pro	Asp	Pro	Pro	Ala	Asn	Ile	Thr	Val
244		210					215					220				
245	Thr	Ala	Val	Ala	Arg	Asn	Pro	Arg	Trp	Leu	Ser	Val	Thr	Trp	Gln	Asp
246	225					230					235					240
247	Pro	His	Ser	Trp	Asn	Ser	Ser	Phe	Tyr	Arg	Leu	Arg	Phe	Glu	Leu	Arg
248					245					250					255	
249	Tyr	Arg	Ala	Glu	Arg	Ser	Lys	Thr	Phe	Thr	Thr	Trp	Met	Val	Lys	Asp
250				260					265					270		
251	Leu	Gln	His	His	Cys	Val	Ile	His	Asp	Ala	Trp	Ser	Gly	Leu	Arg	His
252			275					280					285			
253	Val	Val	Gln	Leu	Arg	Ala	Gln	Glu	Glu	Phe	Gly	Gln	Gly	Glu	Trp	Ser
254		290					295					300				
255	Glu	Trp	Ser	Pro	Glu	Ala	Met	Gly	Thr	Pro	Trp	Thr	Glu	Ser	Arg	Ser
256	305					310					315					320
257	Pro	Pro	Ala	Glu	Asn	Glu	Val	Ser	Thr	Pro	Met	Gln	Ala	Leu	Thr	Thr
258					325					330					335	
259	Asn	Lys	Asp	Asp	Asp	Asn	Ile	Leu	Phe	Arg	Asp	Ser	Ala	Asn	Ala	Thr
260				340					345					350		
261	Ser	Leu	Pro	Val	Gln	Asp	Ala	Gly	Glu	Pro	Lys	Ser	Cys	Asp	Lys	Thr
262			355					360					365			
263	His	Thr	Cys	Pro	Pro	Cys	Pro	Ala	Pro	Glu	Leu	Leu	Gly	Gly	Pro	Ser
264		370					375					380				
265	Val	Phe	Leu	Phe	Pro	Pro	Lys	Pro	Lys	Asp	Thr	Leu	Met	Ile	Ser	Arg
266	385					390					395					400
267	Thr	Pro	Glu	Val	Thr	Cys	Val	Val	Val	Asp	Val	Ser	His	Glu	Asp	Pro
268					405					410					415	
269	Glu	Val	Lys	Phe	Asn	Trp	Tyr	Val	Asp	Gly	Val	Glu	Val	His	Asn	Ala
270			420						425					430		
271	Lys	Thr	Lys	Pro	Arg	Glu	Glu	Gln	Tyr	Asn	Ser	Thr	Tyr	Arg	Val	Val

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/313,942

DATE: 02/14/2002

TIME: 15:49:05

Input Set : A:\REG203.txt

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L:11 M:270 C: Current Application Number differs, Replaced Current Application Number